

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appln. No: 10/560,387  
Applicants: Beatriz Dominguez et al.  
Filed: Herewith  
Title: LIGANDS  
TC/A.U.:  
Examiner:

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98 and to the duty of disclosure set forth in 37 C.F.R. § 1.56, the Examiner in charge of the above-identified application is requested to consider and make of record the references listed on the PTO/SB/08A and PTO/SB/08B submitted herewith. A copy of the references listed on the PTO/SB/08A and PTO/SB/08B, other than U.S. patents, is enclosed.

Although the information submitted herewith may be "material" to the Examiner's consideration of the subject application, this submission is not intended to constitute an admission that such information is "prior art" as to the claimed invention.

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made.

This Information Disclosure Statement is being filed concurrently with the Response to Notification of Missing Requirements in the above-referenced application. Therefore, no fee or statement is required. 37 C.F.R. § 1.97(b).

Respectfully submitted,

  
\_\_\_\_\_  
Christopher R. Lewis, Reg. No. 36,201  
Attorney for Applicants

CRL/lrb  
Enclosures: PTO/SB/08A and PTO/SB/08B  
Copy of twelve (12) references

Dated: April 18, 2006

P.O. Box 980  
Valley Forge, PA 19482-0980  
(610) 407-0700

The Commissioner for Patents is hereby  
authorized to charge payment to Deposit  
Account No. **18-0350** of any fees associated  
with this communication.

**EXPRESS MAIL**

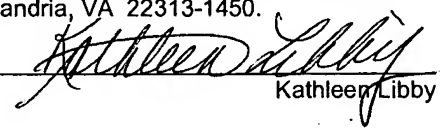
Mailing Label Number:

**EV 614760161 US**

Date of Deposit:

**April 18, 2006**

I hereby certify that this paper and fee are being deposited, under 37 C.F.R. § 1.10 and with sufficient postage, using the "Express Mail Post Office to Addressee" service of the United States Postal Service on the date indicated above and that the deposit is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

  
\_\_\_\_\_  
Kathleen Libby

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for Form 1449A/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

SHEET 1 of 2

**Complete if Known**

Application Number	10/560,387
Filing Date	Herewith
First Named Inventor	Beatriz Dominguez
Art Unit	
Examiner Name	
Attorney Docket No.	JMYS-139US

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date (MM-DD-YYYY)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
	1	US-5,276,053	01/04/1994	Johnson	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date (MM-DD-YYYY)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				
	2	WO-02/066159-A1	08-29-2002	Imperial Chemical Industries PLC		<input type="checkbox"/>
	3	WO-02/057278-A1	07-25-2002	Chirotech Technology Limited		<input type="checkbox"/>
	4	WO-01/74829-A1	10-11-2001	Chirotech Technology Limited		<input type="checkbox"/>
	5	WO-97/47632-A1	12-18-1997	Merck & Co., Inc.		<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

<sup>1</sup>Applicant's unique citation designation number (optional).

<sup>2</sup>See Kind Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04.

<sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard St.3).

<sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

<sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible.

<sup>6</sup>Applicant is to place a check mark here if English language translation is attached.

The collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for Form 1449B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/560,387
Filing Date	Herewith
First Named Inventor	Beatriz Dominguez
Art Unit	
Examiner Name	
Attorney Docket No.	JMYS-139US

SHEET 2 of 2

**NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	6	PHILIP J. PYE et al., "A New Planar Chiral Bisphosphine Ligand for Asymmetric Catalysis: Highly Enantioselective Hydrogenations under Mild Conditions," <i>J. Am. Chem. Soc.</i> , 1997, Vol. 119, pp. 6207-6208.	<input type="checkbox"/>
	7	BEATRIZ DOMINGUEZ et al., "Electrophilic Substitution of Dibromoparacyclophane: A Route to Novel Paracyclophane Phosphine Ligands," <i>Organic Letters</i> , 2004, Vol. 4, No. 12, pp. 1927-1930.	<input type="checkbox"/>
	8	GLENN P. BARTHOLOMEW et al., "Synthesis, Characterization, and Spectroscopy of 4,7,12,15-[2.2]Paracyclophane Containing Donor and Acceptor Groups: Impact of Substitution Patterns on Through-Space Charge Transfer," <i>J. Am. Chem. Soc.</i> , 2002, Vol. 124, pp. 5183-5196.	<input type="checkbox"/>
	9	ANDREW PELTER et al., "The synthesis of homochiral ligands based on [2.2]paracyclophane," <i>Tetrahedron Letters</i> , 2001, Vol. 42, pp. 8391-8394.	<input type="checkbox"/>
	10	ABSTRACT: AHMED M. NOUR-EL-DIN et al., "Chemical reactions on thin-layer chromatoplates: Part I. Reactions of nitrones and [2.2]paracyclophanes," <i>Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry</i> , 1983, Vol. 22B, No. 5, pp. 477-480.	<input type="checkbox"/>
	11	SUSAN E. GIBSON et al., "[2.2]Paracyclophane derivatives in asymmetric catalysis," <i>Org. Biomol. Chem.</i> , 2003, Vol. 1, pp. 1256-1269.	<input type="checkbox"/>
	12	HANS J. REICH et al., "Macro Rings. XXXVII. Multiple Electrophilic Substitution Reactions of [2.2]Paracyclophanes and Interconversions of Polysubstituted Derivatives," <i>J. Am. Chem. Soc.</i> , 1969, Vol. 91, No. 13, pp. 3527-3533.	<input type="checkbox"/>
	13	ANTONIO ZANOTTI-GEROSA et al., "Phosphonites Based on the Paracyclophane Backbone: New Ligands for Highly Selective Rhodium-Catalyzed Asymmetric Hydrogenation," <i>Organic Letters</i> , 2002, Vol. 3, No. 23, pp. 3687-3690.	<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

<sup>1</sup>Applicant's unique citation designation number (optional).

<sup>2</sup>Applicant is to place a check mark here if English language translation is attached.

The collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.

**SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.